

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF APICAL INDUSTRIES DBA DART AEROSPACE. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE WRITTEN PERMISSION OF APICAL INDUSTRIES DBA DART AEROSPACE IS PROHIBITED.

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
	LAST PROTOTYPE RELEASE: PR16		
N/C	INITIAL RELEASE	01-13-21	J. GARDINER
A	INCORPORATED ECN 06711	05-31-21	J. GARDINER
B	INCORPORATED ECN 06733	07-06-21	for P. BRAVO

NOTES:

- 1 IDENTIFY IAW MPP-120
- 2 MATERIAL: 3K 2X2 TWILL CARBON FIBER PREPREG, AXIOM AX-5112T
- 3 MATERIAL: #120 E-GLASS EPOXY PREPREG WITH 48% RC;
- 4 MANUFACTURE IAW MPP-145 SECTION 5.2
- 5 PRIME PARTS WITH TWO COATS IAW MIL-PRF-85582C, TYPE 1, CLASS N
- 6 OVERALL ASSEMBLY DIMENSIONS CONTROLLED BY F/N 1 OR 2
- 7 PART GEOMETRY AND HOLE LOCATION DIMENSIONS CONTROLLED BY CAD MODEL.
FORMAT FILE NAME AS:
"652.25XX(PART NUMBER) XXX(REVISION LEVEL) XXXXXXXXXXXX (PART DESCRIPTION) XX-XX-XX(DATE)"
- 8 OVERALL ASSEMBLY DIMENSIONS CONTROLLED BY F/N 4 OR 5
- 9 INSTALL F/N 11-13, AND 15 USING ADHESIVE F/N 14 CONCENTRIC TO HOLES IN F/N 1 OR 2
PRIOR PRIMER DELTA 5
- 10 CURED AT 250°F WITH RAMP RATE OF 1-3 DEGREES PER MINUTE, HOLD AT 250°F FOR 60 MINUTES
- 11 ZERO DEGREE WARP DIRECTION LISTED ON CORRESPONDING PART DRAWINGS
- 12 INSPECT IAW XXXXX (TBD)
- 13 INSPECT DIAMETERS ON ALL HOLES
- 14 MATERIAL:AR 4315HP ADHESIVE, RESINLAB L.L.C
- 15 MAX WEIGHT: TBD
- 16 MAX WEIGHT: TBD
- 17 MAX WEIGHT: TBD
- 18 APPLY PLY G1 ONLY WHERE SHOWN
- 19 APPLY PLY G2 ONLY WHERE SHOWN
- 20 APPLY MINIMUM 2.00 X 2.00 SQUARES AROUND HOLE LOCATIONS SHOWN. 2.00 WIDE STRIPS
ALLOWED TO STRETCH BETWEEN HOLES THAT ARE LESS THEN 3.00 APART.
- 21 APPLY MINIMUM 3.00 X 3.00 SQUARES AROUND HOLE LOCATIONS SHOWN. 3.00 WIDE STRIPS
ALLOWED TO STRETCH BETWEEN HOLES THAT ARE LESS THEN 2.00 APART.
- 22 LAYER THICKNESS TO TRANSITION OVER 1.00-1.50 IN
- 23 DATUM D IS A POINT
- 24 ADHERE OUTSIDE BODY/FLANGE OF F/N 8 TO F/N 5 AND F/N 6 USING ADHESIVE F/N 14
- 25 THICKNESS CALLOUT IS FOR COVER DOOR FLANGE GEOMETRY ONLY

		8	8	16	601.4391	RIVET	CCR274SS3-05	
2	2			15	654.7026	FLANGE DOUBLER (AFT)		
A/R	A/R			14	600.1005	ADHESIVE	1A	
2	2			13	654.7019	5 HOLE DOUBLER (AFT)		
2	2			12	654.7018	4 HOLE DOUBLER (AFT)		
4	4			11	654.7017	2 HOLE DOUBLER (AFT)		
		2	2	10	649.4011	WIRE TAB		
		1	1	9	601.1983	RIVET	CCR274SS3-03	
		4	4	8	601.3810	CAMLOC STUD		
		4	4	7	601.3713	QUARTER TURN RECEPTACLE		
			1	6	652.2515	AFT COVER DOOR LH	2 3	5 7
		1		5	652.2514	AFT COVER DOOR RH	2 3	5 7
			1	4	652.2513	AFT COVER LH	2 3	5 7 6
		1		3	652.2512	AFT COVER RH	2 3	5 7 6
	1			2	652.2511	AFT POD LH	2 3	5 7 5
1				1	652.2510	AFT POD RH	2 3	5 7 5
x					652.2504	AFT POD ASSEMBLY RH		
	x				652.2503	AFT POD ASSEMBLY LH		
		x			652.2502	AFT COVER ASSEMBLY RH		6 7
			x		652.2501	AFT COVER ASSEMBLY LH		6 7
2504	2503	2502	2501	FIND #	PART #	DESCRIPTION	MAT'L	SPEC.

QTY

NEXT ASSY (\$)

652.2300

ORIGINAL DATE
(MO-DA-YR) 11-09-20

DRAWN BY
EAN

CHECKER
Z. MUTTER

DRAWING APPROVAL
J. GARDINER
01-13-21

CONTRACT No.

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
TOLERANCES ARE:
2 PLACE DECIMALS ±.01
3 PLACE DECIMALS ±.005
ANGLES ± .5°

DART

AEROSPACE

APICAL INDUSTRIES, INC.
dba DART AEROSPACE

3030 ENTERPRISE CT.,
SUITE A
VISTA, CA. 92081
(760)-724-5300

AW169 AFT POD AND COVER

SIZE	CAGE CODE	DWG. NO.	REV.
B	07MZ6	652.2500	B

SCALE NONE SHEET 1 OF 11

D



SIZE B	CAGE CODE 07MZ6	DWG. NO. 652.2500	REV. B
SCALE NONE		SHEET 3 OF 11	

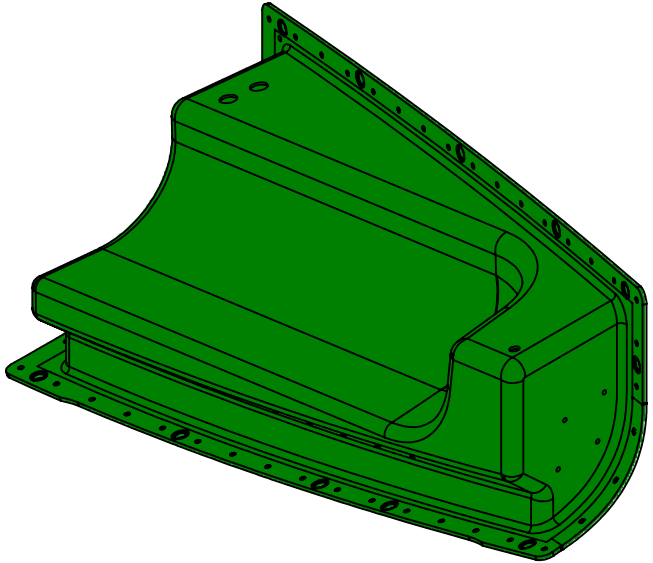
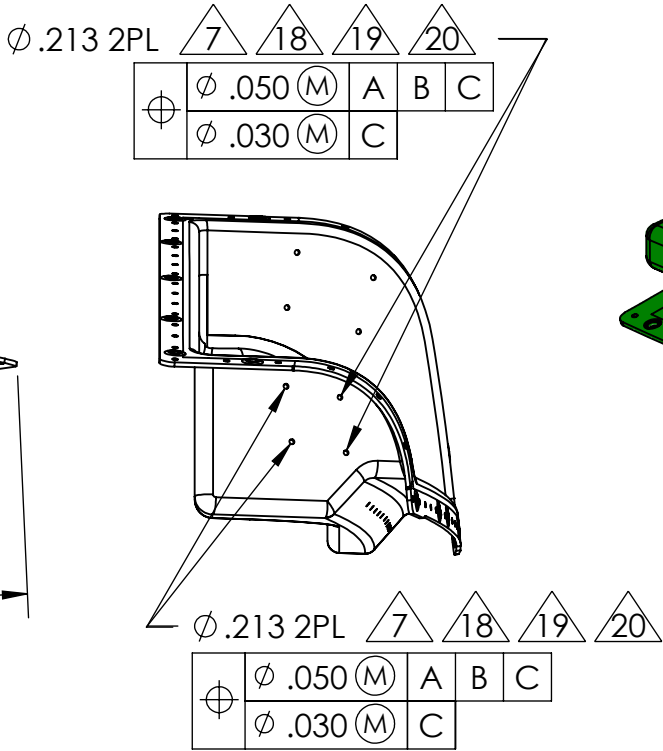
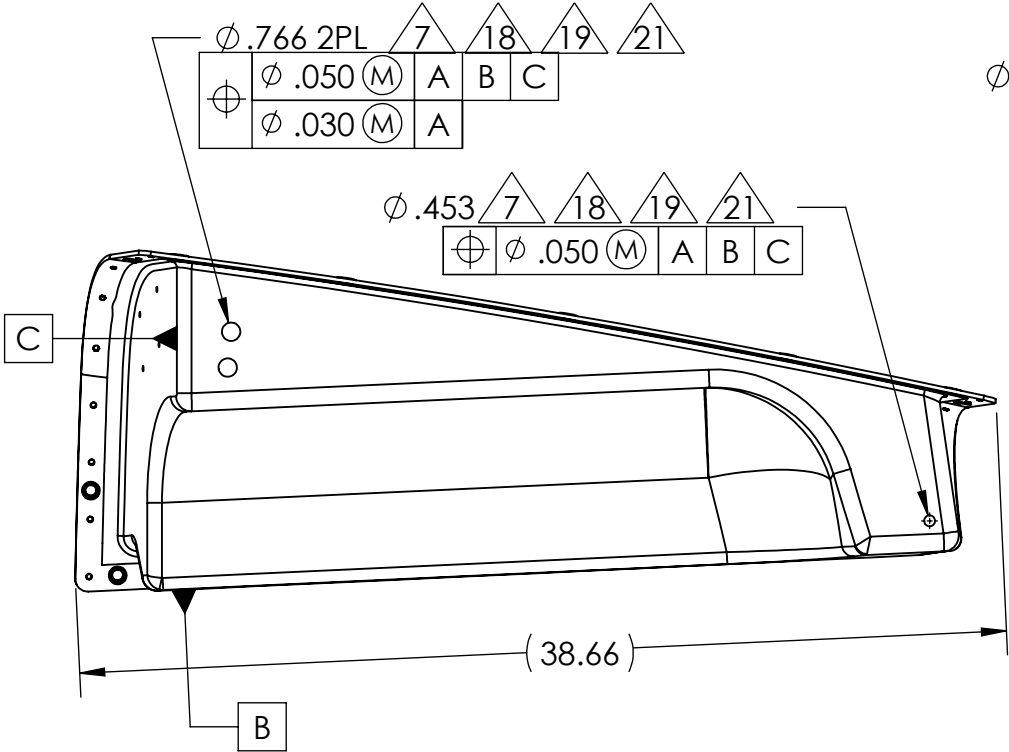
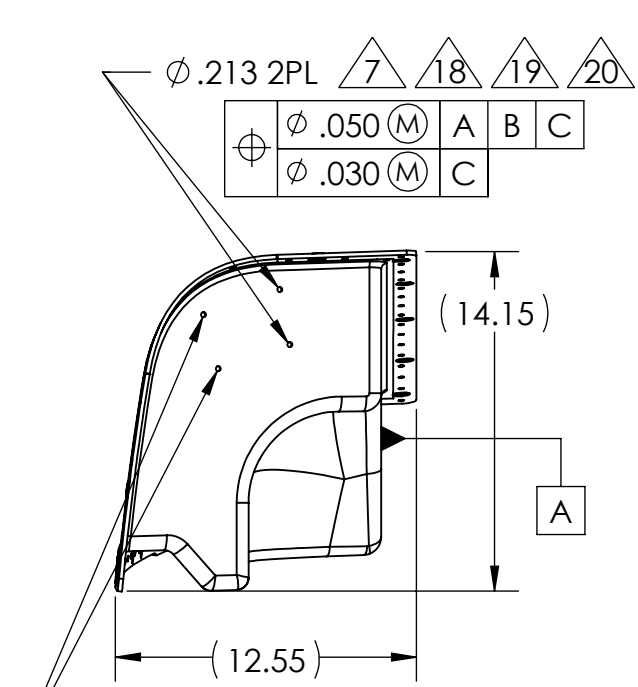
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A

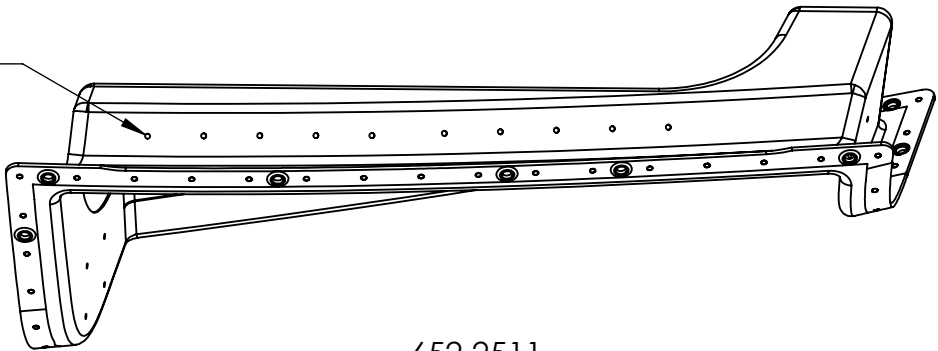
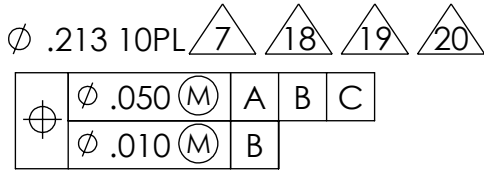
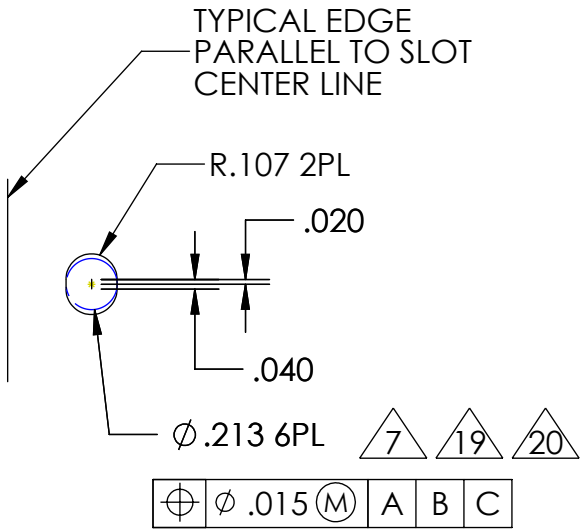
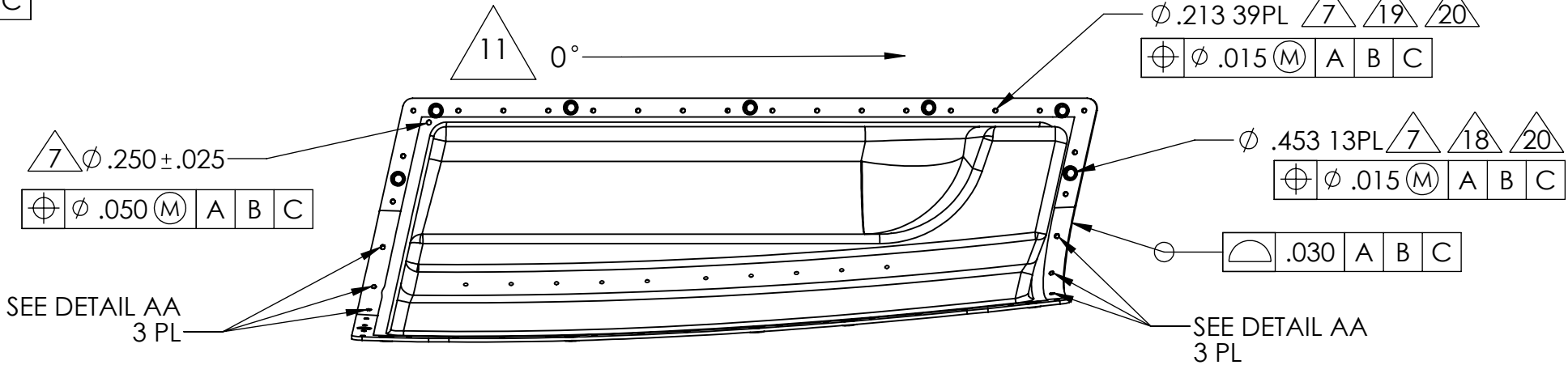
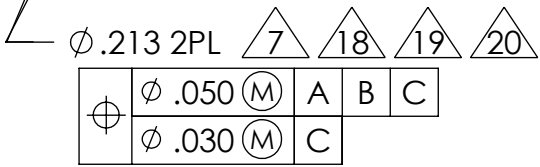
B

C


D



652.2511
652.2510 OPPOSITE

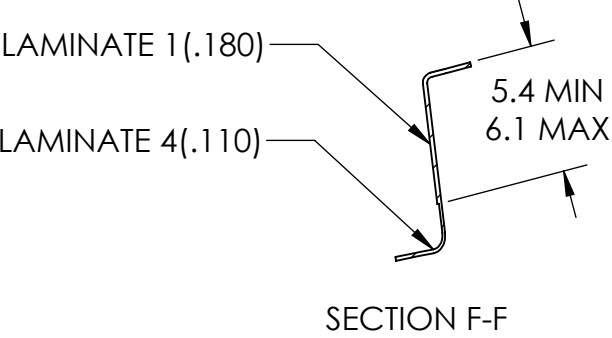
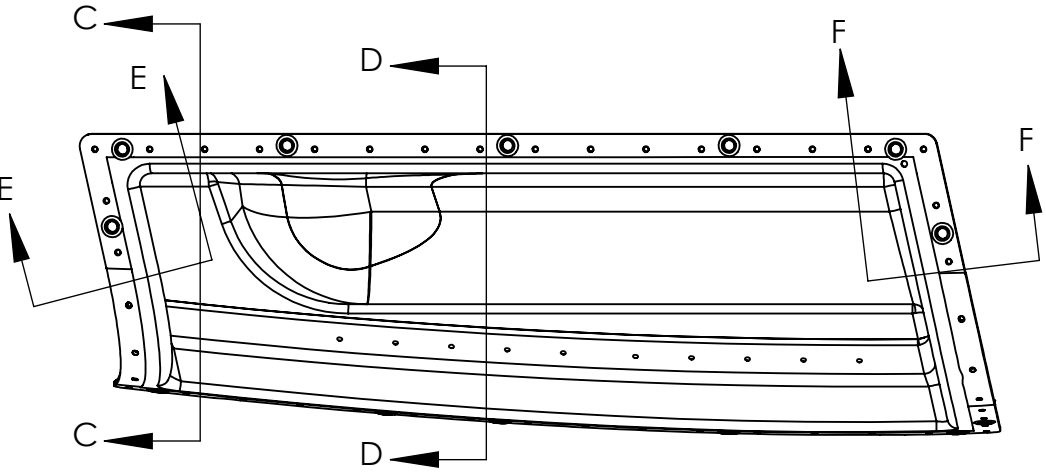
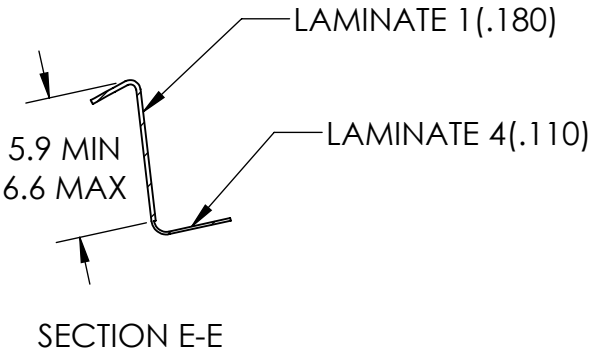
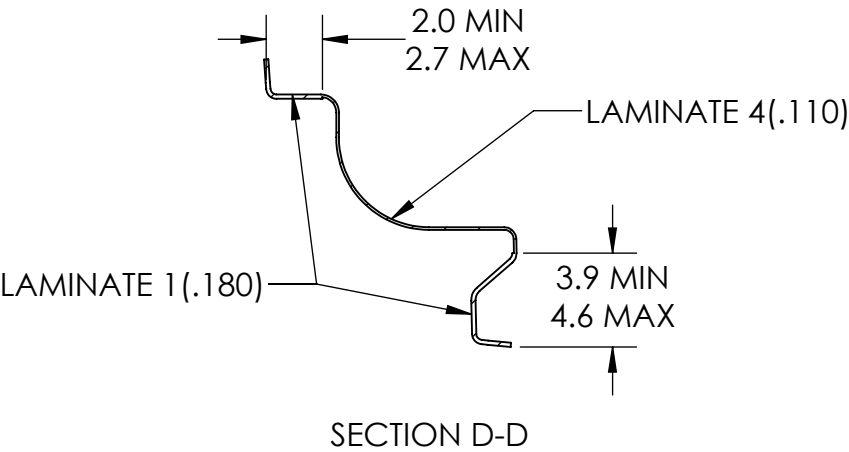
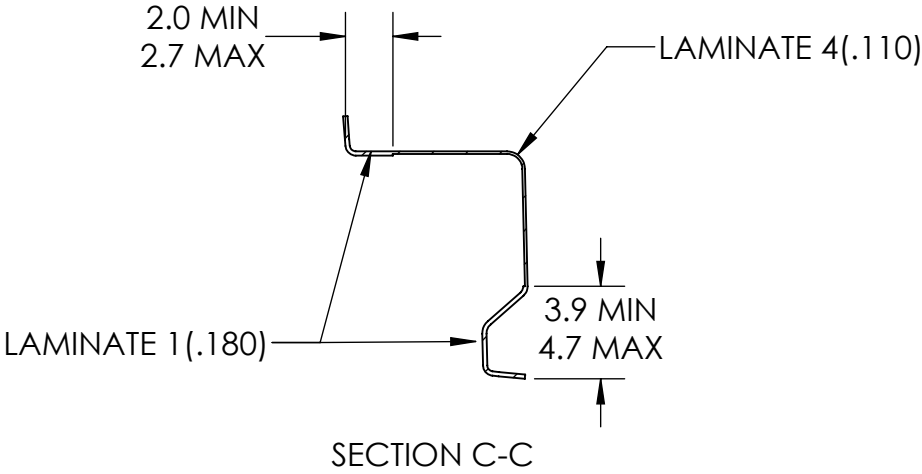



652.2511
652.2510 OPPOSITE

ORIGINAL DATE (MO-DA-YR) 11-09-20		 DART AEROSPACE APICAL INDUSTRIES, INC. dba DART AEROSPACE		3030 ENTERPRISE CT., SUITE A VISTA, CA. 92081 (760)-724-5300	
DRAWN BY EAN	CHECKER Z. MUTTER				
DRAWING APPROVAL J. GARDINER 01-13-21		AW169 AFT POD AND COVER			
CONTRACT No.		SIZE B	CAGE CODE 07MZ6	DWG. NO. 652.2500	REV. B
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ±.01 3 PLACE DECIMALS ±.005 ANGLES ±.5°		SCALE NONE		SHEET 4 OF 11	

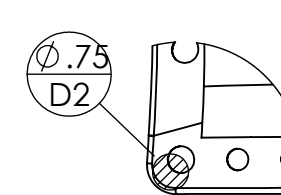
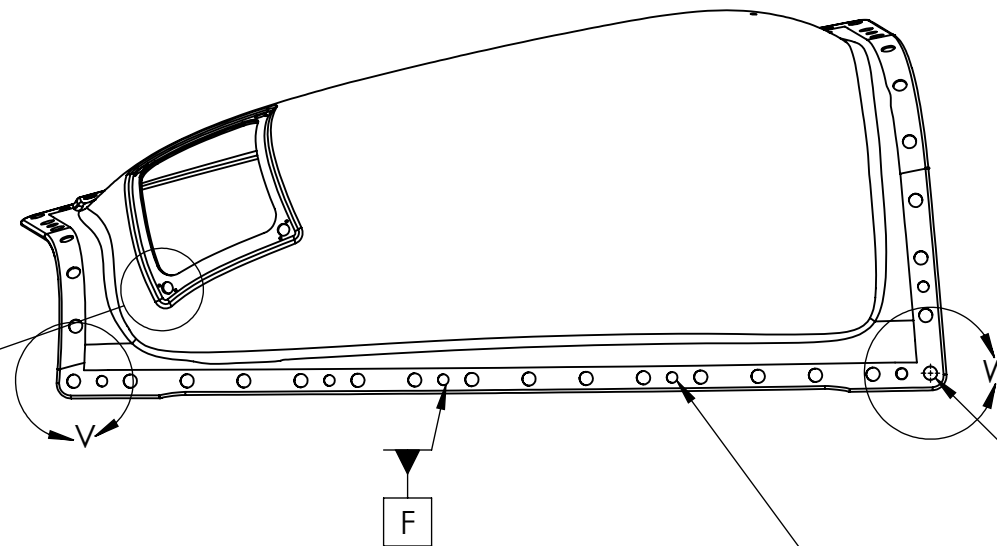
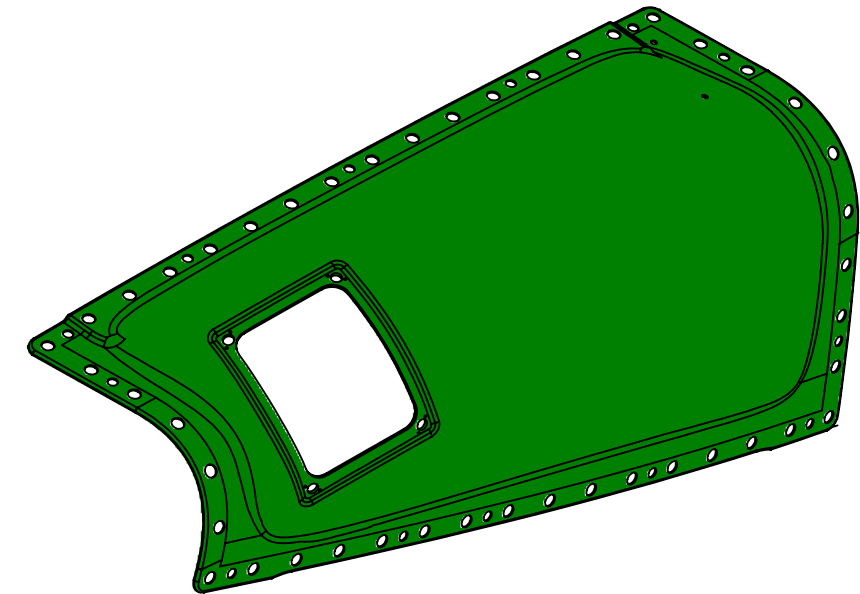
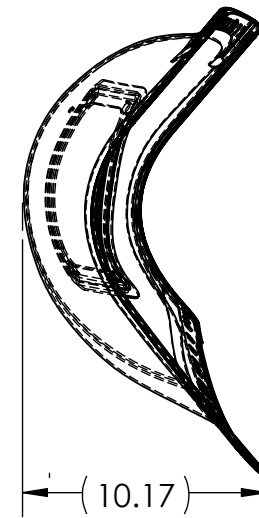
SIZE B	CAGE CODE 07MZ6	DWG. NO. 652.2500	REV. B
SCALE NONE		SHEET 5 OF 11	

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DRAWN BY EAN	CHECKER Z. MUTTER				
DRAWING APPROVAL J. GARDINER 01-13-21		APICAL INDUSTRIES, INC. dba DART AEROSPACE			
CONTRACT No.		AW169 AFT POD AND COVER			
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ±.01 3 PLACE DECIMALS ±.005 ANGLES ± .5°		SIZE	CAGE CODE	DWG. NO.	REV.
		B	07MZ6	652.2500	B
		SCALE NONE		SHEET	6 OF 11

D



Technical drawing of a mechanical part. The detail view shows a circular feature with a diameter of 0.75 and a depth of D3.


Ø.100 2PL    

4PL

$\varnothing .500$ $\triangle 7$ $\triangle 18$ $\triangle 19$ $\triangle 20$

	$\varnothing .015$	\textcircled{M}	D	E	F
--	--------------------	-------------------	---	---	---

— $\varnothing .453 \text{ 13PL} \triangle 7$

	$\varnothing .015 \text{ (M)}$	D	E	F
---	--------------------------------	---	---	---

$\phi .563 \pm .015$ 45PL $\triangle 7$

\oplus	$\phi .015$ (M)	D	E	F
----------	-----------------	---	---	---


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DRAWN BY EAW		CHECKER Z. MUTTER					
DRAWING APPROVAL J. GARDNER 01-13-21							
CONTRACT No.							
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ±.005 3 PLACE DECIMALS ±.010 ANGLES ± .5°				AW169 AFT POD AND COVER			
				SIZE B	CAGE CODE 07MZ6	DWG. NO. 652.2500	REV. B
				SCALE NONE		SHEET 7 OF 11	

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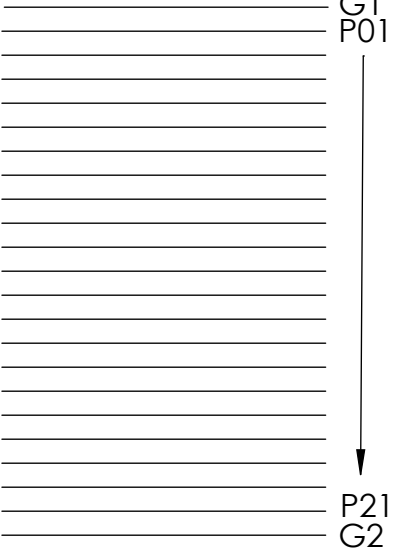
Technical drawing of a rectangular laminate. The drawing includes the following details:

- Dimensions:**
 - Height: (6.40)
 - Width: (7.88)
- Callouts and Features:**
 - Top-left corner: $\phi .25$ J1
 - Top edge: $\phi .257$ 4PL 7 18 19 20
 - Top edge: $\phi .015$ (M) G H J
 - Top edge: $\phi .098$ 7 18 19 20
 - Top edge: $\phi .030$ (M) G H J
 - Top edge: $\phi .25$ J3
 - Top edge: H
 - Top edge: LAMINATE 2(.070)
 - Bottom-left corner: $\phi .25$ J2
 - Bottom edge: 652.2515
 - Bottom edge: 652.2514 OPPOSITE

ORIGINAL DATE (MO-DA-YR)		11-09-20		 <div>3030 ENTERPRISE CT., SUITE A VISTA, CA. 92081 (760)-724-5300</div>	
DRAWN BY FAN	CHECKER Z.N. MUTTER				
DRAWING APPROVAL J. GARDINER 01-13-21		APICAL INDUSTRIES, INC. dba DART AEROSPACE			
CONTRACT No.				AW169 AFT POD AND COVER	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ±.01 3 PLACE DECIMALS ±.005 ANGLES ±.5°					
SIZE B		CAGE CODE 07M76		DWG. NO. 652.2500	REV. B
SCALE NONE				SHEET	9 OF 11

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TOOLING SIDE



LAYUP OF PREPREG LAYERS
.180 ^{+.050}/_{-.010} THICKNESS



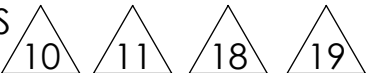
LAMINATE 1 - .180in ^{+.050} / _{-.010} OVERALL THICKNESS			
PLY	WARP ANGLE	MATERIAL	THICKNESS
G1	N/A	3	.008-.010
P01	0	2	.008-.010
P02	+45	2	.008-.010
P03	-45	2	.008-.010
P04	90	2	.008-.010
P05	+45	2	.008-.010
P06	-45	2	.008-.010
P07	0	2	.008-.010
P08	+45	2	.008-.010
P09	-45	2	.008-.010
P10	90	2	.008-.010
P11	0	2	.008-.010
P12	90	2	.008-.010
P13	-45	2	.008-.010
P14	+45	2	.008-.010
P15	0	2	.008-.010
P16	-45	2	.008-.010
P17	+45	2	.008-.010
P18	90	2	.008-.010
P19	-45	2	.008-.010
P20	+45	2	.008-.010
P21	0	2	.008-.010
G2	N/A	3	.008-.010



TOOLING SIDE



LAYUP OF PREPREG LAYERS
0.070 ^{+.030}/_{-.015} THICKNESS



LAMINATE 2 - .07in ^{+.030} / _{-.015} OVERALL THICKNESS			
PLY	WARP ANGLE	MATERIAL	THICKNESS
G1	N/A	3	.008-.010
P01	0	2	.008-.010
P02	+45	2	.008-.010
P03	-45	2	.008-.010
P04	90	2	.008-.010
P05	+45	2	.008-.010
P06	-45	2	.008-.010
P07	0	2	.008-.010
G2	N/A	3	.008-.010



ORIGINAL DATE
(MO-DA-YR) 11-09-20
DRAWN BY
EAN
CHECKER
Z. MUTTER
DRAWING APPROVAL
J. GARDINER
01-13-21
CONTRACT No.

DART 3030 ENTERPRISE CT.,
AEROSPACE SUITE A
APICAL INDUSTRIES, INC. VISTA, CA. 92081
dba DART AEROSPACE (760)-724-5300

AW169 AFT POD AND COVER

UNLESS OTHERWISE SPECIFIED
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TOLERANCES ARE:
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3 PLACE DECIMALS ±.005
ANGLES ± .5°

SIZE	CAGE CODE	DWG. NO.	REV.
B	07MZ6	652.2500	B
SCALE NONE		SHEET	10 OF 11

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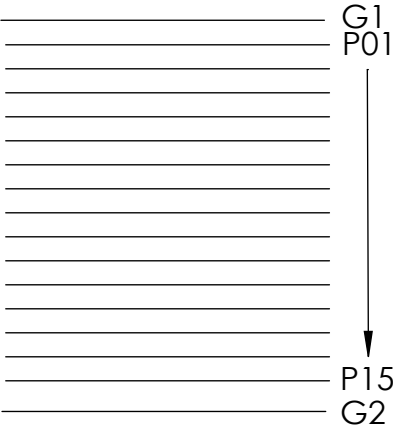
A

B

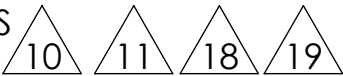
C

D

TOOLING SIDE



LAYUP OF PREPREG LAYERS
.150^{+.030}_{-.030} THICKNESS



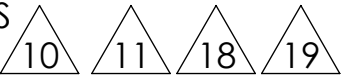
LAMINATE 3 - .150in ^{+.030} _{-.030} OVERALL THICKNESS			
PLY	WARP ANGLE	MATERIAL	THICKNESS
G1	N/A	3	.008-.010
P01	0	2	.008-.010
P02	+45	2	.008-.010
P03	-45	2	.008-.010
P04	90	2	.008-.010
P05	+45	2	.008-.010
P06	-45	2	.008-.010
P07	0	2	.008-.010
P08	90	2	.008-.010
P09	0	2	.008-.010
P10	-45	2	.008-.010
P11	+45	2	.008-.010
P12	90	2	.008-.010
P13	-45	2	.008-.010
P14	+45	2	.008-.010
P15	0	2	.008-.010
G2	N/A	3	.008-.010



TOOLING SIDE



LAYUP OF PREPREG LAYERS
.110^{+.030}_{-.025} THICKNESS



LAMINATE 4 - .110in ^{+.030} _{-.025} OVERALL THICKNESS			
PLY	WARP ANGLE	MATERIAL	THICKNESS
G1	N/A	3	.008-.010
P01	0	2	.008-.010
P02	+45	2	.008-.010
P03	-45	2	.008-.010
P04	90	2	.008-.010
P05	+45	2	.008-.010
P06	-45	2	.008-.010
P07	0	2	.008-.010
P08	+45	2	.008-.010
P09	-45	2	.008-.010
P10	90	2	.008-.010
P11	0	2	.008-.010
G2	N/A	3	.008-.010



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3 PLACE DECIMALS ±.005
ANGLES ± .5°

SIZE	CAGE CODE	DWG. NO.	REV.
B	07MZ6	652.2500	B
SCALE NONE		SHEET 11 OF 11	